

cell to possess two trenches with each trench having four sides.

In re Claim 28, evidently from Figure 3, Tonnel expected a DMOS cell to include two parallel trenches having finite dimensions, thus obviously rendering an open cell configuration.

In re Claim 27, Tonnel expected to physically and electrically tie the trenches together with peripheral ring electrode (24) obviously rendering the claimed close cell configuration.

Applicants respectfully traverse the Examiner's rejection of Claims 17-29 over Tonnel. Specifically, Tonnel does not disclose a trench DMOS transistor, as recited in each of Claims 17-29, but a VMOS transistor. Further, there is no teaching in Tonnel's detailed description regarding the relative depths of the various structures in Tonnel's Figs. 4-19. (See Tonnel's specification, beginning at col. 4, line 5 to col. 6, line 36, where neither the depth of the slot 30, nor the depth of P type region 22 is given). In fact, as the Examiner pointed out, Tonnel's Figs. 4-19 contradict the structure in Fig. 3: whereas the P type body region in Fig. 3 is shown to be of a lesser depth than the depth of slot 30, the corresponding P type body region in Figs. 4-19 are shown to have a greater depth than slot 31. Since Tonnel's Figs 4-19 are provided to illustrate the manufacturing process for the structure of Fig. 3 (Tonnel's col. 4, lines 5-7), such contradiction clearly indicates that the relative depths of structures shown in Figs. 4-19 are not drawn to scale and are merely fortuitous. Thus, Tonnel does not appreciate, and therefore does not teach or suggest, the structures recited in Applicants' Claims 17-29 and their significance. Hence, Tonnel is not an enabling reference, neither disclosing nor suggesting Applicants' Claims 17-29 to one of ordinary skill in the art. To be an effective reference, it is required that "the prior art reference must be enabling, thus placing the alleged disclosed matter in the possession of the public". Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1 USPQ2d 1241. Because Tonnel

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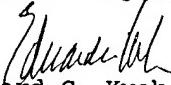
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is not an enabling disclosure, withdrawal of the Examiner's rejection under 35 U.S.C. § 103, reconsideration, and allowance of Claims 17-29 are requested.

The Examiner also rejected Claims 17 to 29 under the judicially established doctrine of obviousness-type double patenting as being unpatentable over Claim 2 and its dependent Claims in U.S. Patent 5,072,266 in view of Tonnel. For the reasons stated above with respect to the Examiner's rejection of 17-29 under 35 U.S.C. § 103, Applicants believe that Claims 17-29 are not obvious in view of Claim 2 and its dependent Claims. Thus, Applicants respectfully request withdrawal of the Examiner's obviousness-type double patenting rejection, reconsideration, and allowance of Claims 17-29.

For the foregoing reasons, Applicants believe that all claims (i.e. Claims 17-29) are allowable and accordingly request their allowance. If the Examiner's next action is other than allowance of all claims, a telephonic interview with the Examiner is hereby requested. The undersigned Attorney for Applicants can be reached at 408-283-1222.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231, on September 30, 1994

9/30/94  
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